



Pre-Demolition Asbestos Survey

Project Number 03-144

At

**Building TA 43-39, LANL
Los Alamos, NM**



For

**Department of the Army
Albuquerque District , Corps of Engineers
4101 Jefferson Plaza, NE
Albuquerque, NM 87109**

November 14, 2003

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INTRODUCTION

The US Army Corps of Engineers, Albuquerque District contracted Acme Environmental, Inc., (Acme) to conduct a Pre-Demolition Asbestos Survey of building TA 43-39 at Los Alamos

Acme Environmental, Inc.
Albuquerque Houston

National Laboratories (LANL), Los Alamos, New Mexico. The survey was conducted on October 28, 2003. Acme conducted the survey in accordance with EPA National Emission Standard for Hazardous Air Pollutants (NESHAP).

The LANL Area Managers Office and the US Army Corps of Engineers Various provided historical asbestos survey reports to known Asbestos Containing Materials (ACMs) at building TA 43-39. These historical asbestos survey reports were used as reference material to minimize duplicating previous asbestos bulk sampling efforts and provide documented evidence of materials identifications.

The historical asbestos survey reports indicate that the pipe chases and ceiling plenums are inaccessible confined spaces. The ACM conditions in these areas were reported unknown and assumed to be in good condition considering the restricted access. Acme's Pre-Demolition Asbestos Survey was also conducted in an occupied building. Destructive sampling and inspection efforts were minimized to eliminate potential health and safety concerns and disruption to occupants. Limited destructive inspection efforts restricted access to ceiling plenums, pipe chases for full ACM determinations. Limited destructive sampling efforts restricted the bulk sample collection of roofing materials assumed ACM in a 1996 report.

Asbestos bulk sampling was performed in substantial compliance with the established 40 CFR 763 sampling protocol and requirements set forth in OSHA's 29 CFR 1926.1101. All work was performed under the direction and review of a Certified Industrial Hygienist. Mr. Paul Encinias and Mr. Cory Peyton (US EPA AHERA-accredited Asbestos Inspectors) conducted the survey.

PROPERTY INFORMATION

LANL Building TA 43-39 at Los Alamos, New Mexico was built in 1949 and consists of three floors, basement and penthouse. This building is concrete, metal lath and plaster construction. Although the building is currently used for office space, the original use of the building was military barracks that included sleeping quarters, latrines, shower areas, kitchen/mess hall and possibly some laundry facilities. Some renovations have occurred; enclosing the foyer on the first floor from the former mess hall to the main building and adding an elevator that services the basement and the three main floors. Wall partitions were added subdividing the sleeping quarters into office areas. Glued-on Carpeting was placed over the vinyl flooring products in many of the office areas and corridors. Acme estimates that 90% of the original windows have been replaced. The flat built-up roofing was reported replaced within the last five years.

ASBESTOS-CONTAINING MATERIALS**LANL BUILDING TA 43-39, LOS ALAMOS, NEW MEXICO**

MATERIAL DESCRIPTION (SURF, TSI, F, NF)	MATERIAL LOCATION	ESTIMATED QUANTITIES
Tan Texture on Drywall (Surf,F)	1st Floor Rm. 111	300 – SF
4" Black & Brown Asphalt Cove base & Associated Mastic (Misc., NF)	1st Floor Rms. 102, 101, 2nd Floor Rms. 200x, 201, 202, 203, 204, 205, 206, 207, 209, 210, 212, 213, 214, 216, 218, 220, 221, 222, 223, 224 & 226 3rd Floor Rms. 300t, 300sb, 300e, 306, 307, 308, 310, 312, 313, 314, 316, 318, 320, 321, 323, 325 Basement Rms. 12, 14, 15, 20a, 20b, 21, 22 & Hallway	1500 – LF
Ext. Tan Wall Surfacing (Surf,NFF)	Exterior Building Wall Surfaces	21,000 – SF
Off-white Textured Surface, Acoustical Ceiling Plaster (Surf, F)	1st, 2nd, 3rd Floor Corridors, Foyer's, Telephone Rooms and 2nd Floor Copy Room	3,100 – SF
Tan Mosaic, Vinyl Sheet Flooring (Misc., NF)	1st Floor Rms. 108, 110, 110a, 110b & 110c Under Carpet	1,000 – SF
9" Green w/White Streaks Vinyl Floor Tile & Associated Black Mastic (Misc., NF)	Basement Rms. 21, 22a, 20b, 20c & Hallway by Entrance	1,200 – SF
12" Green w/White Streaks Vinyl Floor Tile & Associated Black Mastic (Misc., NF)	Basement Hallway	250 – SF
9" Tan Vinyl Floor Tile & Associated Black Mastic (Misc., NF)	Basement, Room 15	500 – SF
9" Black Mosaic Vinyl Floor Tile & Associated Tan Mastic (Misc., NF)	1st Floor Rms.-101, 102, East & West Stairwell's 2nd Floor Rms. 200x 201, 202, 203, 204, 205, 206, 207, 209, 210, 212, 213, 214, 216, 218, 220, 221, 222, 223, 224 & 226 3rd Floor Rms. 300t, 300sb, 300e, 306, 307, 308, 310, 312, 313, 314, 316, 318, 320, 321, 323 & 325 Basement Rms. 12, 14, 15, 20a, 20b, 21 & 22a	9500 – SF
9" Black Vinyl Floor Tile & Associated Black Mastic (Misc., NF)	1st Floor Rms. 100e, 103, 104, 105, 106, 107, 109, 114, 115, 116, 117, 118, 119, 120, 122, 123, 124, 125, 126 & 127 2nd Floor Rms. 200, 200b, 208, 211, 215, 217, 219, 225 & 227 3rd Floor Rms. 300a, 301, 302, 303, 304, 309, 311, 315, 317, 319, 322, 324, 326 & 327	26,600 – SF
Pipe Run Insulation (TSI,F)	Basement Ceiling Plenum 1st Floor Ceiling Plenum and Vertical Pipe Chases 2nd Floor Ceiling Plenum and Vertical Pipe Chases 3rd Floor Ceiling Plenum and Vertical Pipe Chases	900 – LF 1500 – LF 1500 – LF N/A
Pipe Fitting Insulation (Hardfittings) (TSI,F)	Basement Ceiling 1st Floor Ceiling Plenum and Vertical Pipe Chases 2nd Floor Ceiling Plenum and Vertical Pipe Chases 3rd Floor Ceiling Plenum and Vertical Pipe Chases	150 – Each 150 – Each 150 – Each N/A
Firedoors (Misc. NF)	Basement-6 1st Floor-11 2nd Floor-4 3rd Floor-6	27 - Each
ASSUMED Asphalt Roofing Materials (Misc/NF)	Penthouse Roof, #rd Floor Roof & Large Conference Room	15,500 – SF

F - Friable

NF - Non-Friable

Misc. - Miscellaneous

Surf - Surfacing

TSI - Thermal Systems Insulation

Note: Materials identified by Acme were estimated quantities. Licensed contractors should conduct visual inspections to determine actual materials, quantities and cost estimates for abatement purposes.

ASBESTOS BULK SAMPLE ANALYSIS

Bulk samples were collected and submitted to an independent laboratory to be analyzed using Polarized Light Microscopy (PLM) in accordance with the U.S. Environmental Protection Agency "Method for the Determination of Asbestos in Bulk Samples" (EPA 600/R-93/116, July 1993). Crisp Analytical Laboratories, LLC (CA Labs) of Carrollton, TX performed the analysis. CA Labs is accredited for asbestos analysis under the National Voluntary Laboratory Accreditation Program (NVLAP), accreditation #200349-0.

Laboratory results are enclosed in Appendix A. One hundred ninety-seven bulk sample layers were collected of the suspect asbestos-containing materials identified during this survey. The table below lists the suspect asbestos bulk sample analytical results reported to Acme.

LANL BUILDING TA 43-39, LANL, LOS ALAMOS, NEW MEXICO

ASBESTOS BULK SAMPLE DATA

SAMPLE NUMBER	MATERIAL DESCRIPTION	SAMPLE LOCATION	ASBESTOS CONTENT BY PERCENT
03-144-01	Brown soil / debris	West crawl space, Middle	< 1% chrysotile amosite < 1%
03-144-02	Brown soil / debris	West crawl space, Entrance	< 1% chrysotile amosite < 1%
03-144-03	Brown soil / debris	West crawl space, S.W. area	< 1% chrysotile, 0.25% By point count < 1% amosite, Trace by Point Count
03-144-04	Brown soil / debris	West crawl space, West Vent	< 1% chrysotile amosite < 1%
03-144-05	Brown soil / debris	West crawl space, NE corner	< 1% chrysotile 1% amosite <
03-144-06	Brown soil / debris	East crawl space, SW area	< 1% chrysotile amosite < 1%
03-144-07	Brown soil / debris	East crawl space, Entrance	< 1% chrysotile amosite < 1%
03-144-08	Brown soil / debris	East crawl space, Middle	< 1% chrysotile amosite < 1%
03-144-09	Brown soil / debris	East crawl space, N.E	< 1% chrysotile, 0.25% By point count < 1% amosite, 0.25% By point count
03-144-10	Brown soil / debris	East crawl space, SE by vent	< 1% chrysotile amosite < 1%
03-144-11	White compound w/ white surfacing	Rm. 21A, Basement	None detected
03-144-12	White compound w/ white surfacing	1st floor, SW stairwell	None detected
03-144-13	Tan compound w/ tan surfacing	1st Floor, Rm. 111	2% chrysotile, 2.0% by Point Count
03-144-14	White plaster w/ tan surfacing	Rm. 100L	None detected
03-144-15	White plaster w/ tan surfacing	Rm. 100L	None detected
2 nd Layer	Gray granular plaster		None detected
03-144-16	White plaster w/ tan surfacing	Rm. 100L	None detected

NA - Not Analyzed,

NAD - No Asbestos Detected,

Bold Red Text - Positive Samples

LANL BUILDING TA 43-39, LANL, LOS ALAMOS, NEW MEXICO

ASBESTOS BULK SAMPLE DATA

SAMPLE NUMBER	MATERIAL DESCRIPTION	SAMPLE LOCATION	ASBESTOS CONTENT BY PERCENT
03-144-17	Beige plaster w/ white surfacing	Rm. 111	None detected
03-144-18	Beige plaster w/ tan surfacing	1st floor, corridor, N/W door	None detected
03-144-19	Beige plaster w/ tan surfacing	E. Basement Stairwell	None detected
03-144-20	White textured surfacing	Rm. 21A, Storage, 1st floor	None detected
2 nd Layer	Beige plaster		None detected
03-144-21	White textured surfacing	S.W. stairwell, 2nd flr.	None detected
2 nd Layer	Beige plaster		None detected
03-144-22	Black cove base	Room 318	10% chrysotile
2 nd Layer	Brown mastic		2% chrysotile
03-144-23	Black cove base	Room 321	12% chrysotile
2 nd Layer	Brown mastic		< 1% chrysotile
03-144-24	Black cove base	Room 121	12% chrysotile
03-144-25	Brown cove base	Room 200x	14% chrysotile
03-144-26	Brown cove base	Room 200x	14% chrysotile
03-144-27	Brown cove base	Room 200x	12% chrysotile
03-144-28	Tan plaster w/ tan surfacing	Exterior North, Main building.	2% chrysotile
03-144-29	Tan plaster w/ tan surfacing	Exterior NW	2% chrysotile, 1.75% by point count < 1% anthophyllite , 0.25% by point count
03-144-30	Tan compound w/ tan surfacing	Exterior, by Main Entrance	2% chrysotile
2 nd Layer	Beige plaster w/ woven mesh		None detected
03-144-31	Tan plaster w/ tan surfacing	Exterior, north, Addition	2% chrysotile
03-144-32	Tan surfacing	Exterior, East Main	3% chrysotile, 3.25% by point count
2 nd Layer	Beige plaster		None detected
03-144-33	Off-white Textured Surface, Acoustical Ceiling Plaster	Ceiling, 1st floor, telephone closet	2% chrysotile
03-144-34	Off-white Textured Surface, Acoustical Ceiling Plaster	Ceiling, 1st floor, Elevator foyer area	2% chrysotile
03-144-35	Off-white Textured Surface, Acoustical Ceiling Plaster	Ceiling, 1st floor, west corridor, outside Rm. 123	3% chrysotile
03-144-36	Off-white Textured Surface, Acoustical Ceiling Plaster	Ceiling, 3rd floor, Rm. 300T	2% chrysotile
03-144-37	Off-white Textured Surface, Acoustical Ceiling Plaster	Ceiling, 2nd floor, copy Rm.	3% chrysotile
03-144-38	Brown ceiling tile mastic	1st floor, east office	None detected
03-144-39	Brown ceiling tile mastic	2nd floor, copy Rm.	None detected
03-144-40	Brown ceiling tile mastic	3rd floor, 302	None detected
03-144-41	White surfacing	Rm. 302	None detected
2 nd Layer	2' Gray fibrous ceiling tile		None detected
03-144-42	White surfacing	Rm. 302	None detected
2 nd Layer	2' Gray fibrous ceiling tile		None detected
03-144-43	White surfacing	Rm. 302	None detected
2 nd Layer	2' Gray fibrous ceiling tile		None detected
03-144-44	White surfacing	2nd floor copy Rm.	None detected
2 nd Layer	12" Bn. Fibrous Ceiling Tile w/ Large Holes		None detected

NA - Not Analyzed,

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Bold Red Text - Positive Samples

LANL BUILDING TA 43-39, LANL, LOS ALAMOS, NEW MEXICO

ASBESTOS BULK SAMPLE DATA

SAMPLE NUMBER	MATERIAL DESCRIPTION	SAMPLE LOCATION	ASBESTOS CONTENT BY PERCENT
03-144-45	White surfacing	Rm. 318	None detected
2 nd Layer	12" Bm. Fibrous Ceiling Tile w/Large Holes		None detected
03-144-46	White surfacing	Rm. 302	None detected
2 nd Layer	12" Bm. Fibrous Ceiling Tile w/Large Holes		None detected
03-144-47	White surfacing	Rm. 222	None detected
2 nd Layer	12" Bm. Fibrous Ceiling Tile w/L & S Holes		None detected
03-144-48	White surfacing	Rm. 216	None detected
2 nd Layer	12" Bm. Fibrous Ceiling Tile w/L & S Holes		None detected
03-144-49	White surfacing	Rm. 306	None detected
2 nd Layer	12" Bm. Fibrous Ceiling Tile w/L & S Holes		None detected
03-144-50	12" large fissured floor tile	1st floor stair well	None detected
2 nd Layer	Tan mastic		None detected
03-144-51	12" large fissured floor tile	2nd floor stair well	None detected
2 nd Layer	Tan mastic		None detected
03-144-52	12" large fissured floor tile	Penthouse stair well	None detected
2 nd Layer	Tan mastic		None detected
03-144-53	6" Tan/Brown pliable base board	Penthouse	None detected
2 nd Layer	Tan mastic		None detected
03-144-54	6" Tan/Brown pliable base board	Penthouse	None detected
2 nd Layer	Tan mastic		None detected
03-144-55	6" Tan/Brown pliable base board	Penthouse	None detected
2 nd Layer	Tan mastic		None detected
03-144-56	White surfacing	Penthouse conference	None detected
2 nd Layer	2'x4' lay-in Gray fibrous ceiling tile		None detected
03-144-57	White surfacing	Penthouse conference	None detected
2 nd Layer	2'x4' lay-in Gray fibrous ceiling tile		None detected
03-144-58	2'x4' lay-in Gray fibrous ceiling tile	Penthouse conference	None detected
03-144-59	4" Black Pliable Base Board (no mastic)	Room 326	None detected
03-144-60	4" Black Pliable Base Board (no mastic)	Room 323	None detected
03-144-61	4" Black Pliable Base Board (no mastic)	Room 323	None detected
03-144-62	White surfacing	Room 300A	None detected
2 nd Layer	12" Gray Fibrous Ceiling Tile w/Trowel on Surf.		None detected
03-144-63	White surfacing	Room 129	None detected
2 nd Layer	12" Gray Fibrous Ceiling Tile w/Trowel on Surf.		None detected
03-144-64	White surfacing	Room 315	None detected
2 nd Layer	12" Gray Fibrous Ceiling Tile w/Trowel on Surf.		None detected
03-144-65	White surfacing	Room 308	None detected
2 nd Layer	12" Gray Fibrous Ceiling Tile w/Med. Fissures		None detected
03-144-66	White surfacing	Room 117	None detected
2 nd Layer	12" Gray Fibrous Ceiling Tile w/Med. Fissures		None detected
03-144-67	White surfacing	Room 204	None detected
2 nd Layer	12" Gray Fibrous Ceiling Tile w/Med. Fissures		None detected
03-144-68	2'x4' Gray fibrous ceiling tile	Room 110	None detected
03-144-69	White surfacing	Room 110L	None detected
2 nd Layer	2'x4' Gray fibrous ceiling tile		None detected
03-144-70	White surfacing	Room 110B	None detected
2 nd Layer	2'x4' Gray fibrous ceiling tile		None detected

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ASBESTOS BULK SAMPLE DATA

SAMPLE NUMBER	MATERIAL DESCRIPTION	SAMPLE LOCATION	ASBESTOS CONTENT BY PERCENT
03-144-71	4" Brn. Wood Finish Base Board	Penthouse conference suite	None detected
2 nd Layer	Tan mastic		None detected
03-144-72	4" Brn. Wood Finish Base Board	Penthouse conference suite	None detected
2 nd Layer	Tan mastic		None detected
03-144-73	4" Brn. Wood Finish Base Board	Penthouse conference suite	None detected
2 nd Layer	Tan mastic		None detected
03-144-74	4" Brown pliable base board	Room 100	None detected
2 nd Layer	Tan mastic		None detected
03-144-75	4" Brown pliable base board	1st Floor Kitchen/Lunch	None detected
2 nd Layer	Tan mastic		None detected
03-144-76	4" Brown pliable base board	Room 129	None detected
2 nd Layer	Tan mastic		None detected
03-144-77	Brown fibrous insulation	Above ceiling, Kitchen, 1st floor	None detected
03-144-78	Brown fibrous insulation	Above ceiling, Kitchen, 1st floor	None detected
03-144-79	Brown fibrous insulation	Above ceiling, Kitchen, 1st floor	None detected
03-144-80	4" Gray pliable base board	Room 219	None detected
2 nd Layer	Tan mastic		None detected
03-144-81	4" Gray pliable base board	Room 219	None detected
2 nd Layer	Tan mastic		None detected
03-144-82	4" Gray pliable base board	Room 219	None detected
2 nd Layer	Tan mastic		None detected
03-144-83	4" Tan/Brown pliable base board	3rd floor corridor	None detected
2 nd Layer	Tan mastic		None detected
03-144-84	4" Tan/Brown pliable base board	3rd floor corridor	None detected
03-144-85	4" Tan/Brown pliable base board	3rd floor corridor	None detected
03-144-86	Gray Window Glaze/Hard Caulking	1st floor, exterior west	None detected
03-144-87	Gray Window Glaze/Hard Caulking	Exterior by Entrance	None detected
03-144-88	Gray Window Glaze/Hard Caulking	1st floor exterior East	None detected
03-144-89	Granular Ceiling plaster	3rd floor East Stairwell	None detected
03-144-90	Granular Ceiling plaster	1st floor East office area	None detected
03-144-91	Granular Ceiling plaster	2nd floor West Stairwell	None detected
03-144-92	Granular Ceiling plaster	2nd floor East Stairwell	None detected
03-144-93	Granular Ceiling plaster	3rd floor West Stairwell	None detected
03-144-94	Granular Ceiling plaster	1st floor West Stairwell	None detected
03-144-95	Granular Ceiling plaster	Rm. 21A, 1St. fl.	None detected
03-144-96	Beige Mosaic Linoleum	Rm. 108, East	20% Chrysotile
03-144-97	Beige Mosaic Linoleum	Rm. 110D, East	25% Chrysotile
03-144-98	Beige Mosaic Linoleum	Rm. 108, East	28% Chrysotile
03-144-99	12" white floor tile w/ Brown spots	1st floor, North conference kitchen	None detected
2 nd Layer	Tan Mastic		None detected
03-144-100	12" white floor tile w/ Brown spots	Rm. 102	None detected
2 nd Layer	Tan Mastic		None detected
03-144-101	12" white floor tile w/ Brown spots	1st floor, N conference Rm. kitchen	None detected
2 nd Layer	Tan Mastic		None detected
03-144-102	9" Green w/white streaks floor tile	Rm. 21	8% chrysotile
2nd Layer	Black Mastic		3% chrysotile

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LANL BUILDING TA 43-39, LANL, LOS ALAMOS, NEW MEXICO

ASBESTOS BULK SAMPLE DATA

SAMPLE NUMBER	MATERIAL DESCRIPTION	SAMPLE LOCATION	ASBESTOS CONTENT BY PERCENT
03-144-103	9" Green w/white streaks floor tile	Rm. 22A	10% chrysotile
2 nd Layer	Black Mastic		4% chrysotile
03-144-104	9" Green w/white streaks floor tile	North exit Hall, Basement	8% chrysotile
2 nd Layer	Black Mastic		5% chrysotile
03-144-105	12" Green w/white streaks floor tile	Hall, Basement	10% chrysotile
2 nd Layer	Black Mastic		3% chrysotile
03-144-106	12" Green w/white streaks floor tile	Hall, Basement	7% chrysotile
2 nd Layer	Black Mastic		4% chrysotile
03-144-107	12" Green w/white streaks floor tile	Hall, Basement	11% chrysotile
2 nd Layer	Black Mastic		5% chrysotile
03-144-108	9x9 Lt. Green	Basement offices, Rm. 21	None detected
2 nd Layer	Black Mastic	North exit Hall, Basement	2% chrysotile
03-144-109	9x9 Lt. green	Basement offices, Rm. 21	None detected
2 nd Layer	Black Mastic	North exit Hall, Basement	2% chrysotile
03-144-110	9x9 Lt. green	Basement offices, Rm. 21	None detected
2 nd Layer	Black Mastic	North exit Hall, Basement	2% chrysotile
03-144-111	9" Tan Floor tile	Basement, 20A	10% Chrysotile
2 nd Layer	Black Mastic		4% chrysotile
03-144-112	9" Tan Floor tile	Basement, Foyer	8% chrysotile
2 nd Layer	Black Mastic		3% chrysotile
03-144-113	9" Tan Floor tile	Basement, Rm. 15	11% chrysotile
2 nd Layer	Black Mastic		3% chrysotile
03-144-114	9"Bn. Floor Tile w/White & Red Streaks	1st floor, NW stairwell	None Detected
2 nd Layer	Tan Mastic		None Detected
03-144-115	9"Bn. Floor Tile w/White & Red Streaks	1st floor, NW stairwell	None Detected
2 nd Layer	Tan Mastic		None Detected
03-144-116	9"Bn. Floor Tile w/White & Red Streaks	1st floor, NW stairwell	None Detected
2 nd Layer	Tan Mastic		None Detected
03-144-117	9" brown floor tile, Mosaic	1st floor, SW stairwell	8% chrysotile
2 nd Layer	Tan Mastic		4% chrysotile
03-144-118	9" brown floor tile, Mosaic	1st floor, SW stairwell	8% chrysotile
2 nd Layer	Tan Mastic		4% chrysotile
03-144-119	9" brown floor tile, Mosaic	1st floor, SW stairwell	8% chrysotile
2 nd Layer	Tan Mastic		4% chrysotile

NA - Not Analyzed,

NAD - No Asbestos Detected,

Bold Red Text - Positive Samples

CONCLUSIONS

Based on Acme's asbestos survey, bulk-sampling efforts, Bulk Sample PLM layer analysis and historical asbestos survey reports sixty-five (65) suspect ACM homogeneous layers of materials were found at LANL building TA 43-39. Twenty of those materials were found to be ACM greater than one percent or assumed ACM. Refer to attached drawings for general material locations.

Acme attempted to inspect all suspect asbestos-containing building materials observed during this survey; other suspect materials may still exist in areas not readily accessible or identifiable. Limited destructive inspection efforts restricted access to inaccessible ceiling plenums and vertical pipe chases for full ACM/TSI determinations. The ACM/TSI conditions are still unknown and are assumed to be in good condition considering the restricted access to these areas.

The ACM/TSI in the boiler room, mechanical room, East and West wing crawlspaces appear to have been abated. No records of this activity were provided to Acme.

The hot water holding tank in the basement mechanical room is insulated with fiberglass insulation and associated piping was found to be Non-ACM.

Acme did not sample any of the TSI materials; they were identified in previous surveys provided by the Corps of Engineers.

The Granular Plaster on interior office ceilings and walls on all floors were found to be Non-ACM.

The white 12" floor tiles located in the stairwell landings and the 1st floor north conference room and kitchen areas were found to be Non-ACM.

All acoustical ceiling tile and associated mastic were found to be Non-ACM.

SURFACING

- The ACM Off-white Textured Surface, Acoustical Ceiling Plaster found at the 1st, 2nd, 3rd floor corridors, foyers, telephone rooms, and 2nd floor copy room was identified as an acoustical plaster containing minimal granular bumps. This material has a softer texture than that of the other wall/ceiling hard plaster located in offices and stairwell ceilings. This ACM will become friable during renovation or demolition activities and will require abatement prior to demolition.
- The ACM Exterior Tan Wall surfacing material was identified as a painted stucco-type material. Acme requested PLM Point Count Analysis performed by CA Labs for definitive asbestos concentrations. The PLM Point Count Analysis reported **1.75% Chrysotile** and **0.25% Anthophyllite**. Weather damage to the material was observed at various areas causing the material to delaminate from the substrate. This material is considered friable where damaged. This ACM will become friable during renovation or demolition activities and will require abatement prior to demolition.

THERMAL SYSTEMS INSULATION

- The ACM/TSI pipe and pipe fitting insulation is located in pipe chases behind walls and above ceiling. Acme did not observed any delaminated pipe coverings in the pipe chases or above the ceilings; however care should be taken when accessing the interior ceiling spaces to access these areas for removal of TSI. This ACM will become friable during renovation or demolition activities and will require abatement prior to demolition.

MISCELLANEOUS

- The ACM/Vinyl flooring materials and associated mastics were identified in most areas of the building. Glued-on carpet has been overlaid on the ACM vinyl flooring and poses a high risk of breakage upon removal. Carpet that pulls up floor tile should be considered asbestos contaminated and disposed of accordingly. This ACM will become friable during renovation or demolition activities and will require abatement prior to demolition.
- The ACM/Four inch (4"), black or brown baseboards with an asphalt appearance were identified in offices where no carpet exists. This ACM will become friable during renovation or demolition activities and will require abatement prior to demolition.
- The ACM/Firedoors have been previously identified at stairwells, corridor or mechanical rooms and have been labeled with Asbestos Warning Labels. This ACM will become friable during renovation or demolition activities and will require abatement prior to demolition.
- The ASSUMED ACM/Roofing materials appear to be in good condition having been replaced recently. This material is not a Regulated Asbestos Containing Material (RACM) and is considered non-friable and is not expected to become friable during renovation or demolition activities and will not require abatement prior to demolition.

RECOMMENDATIONS & APPLICABLE REGULATIONS

The Environmental Protection Agency requires that identified ACM's that are friable, or may become friable, during the course of renovation or demolition, be removed from the buildings prior to renovation or demolition activities begin. Steps should be taken to follow the guidelines set forth in OSHA 29 CFR 1926.1101 for removal of Regulated Asbestos-Containing Materials (RACM) and worker protection.

Friable asbestos material means any material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

The Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101(g) (1) (ii) and (iii) as well as the recordkeeping requirements under 29 CFR 11926.1101 (n) that are associated with the negative exposure assessment, apply so long as neither asbestos permissible exposure limit (PEL) is exceeded or might be exceeded. 29 CFR 1926.1101 (g) (1) (ii) requires:

" Wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to for example; the creation of electrical hazards, equipment malfunction, and in roofing, except as provided in paragraph (g) (8) (ii) of this section:"

And 29 CFR 1926.1101 (g) (1) (iii)

"Prompt cleanup and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g) (8) (ii) of this section apply."

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Acme Environmental, Inc. appreciates this opportunity to provide testing and consulting services to the US Army Corps of Engineers, Albuquerque District. If you have questions or require additional information, please contact Acme at 872-2263.

Sincerely,
Acme Environmental, Inc.

QC Review

Paul Encinias
Certified Asbestos Inspector

David Charlesworth
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